

APPENDIX D.3

NSCG/SDR Retirement Module Development Literature Review

Capturing Data on Diverse Career Pathways to Retirement and Semi-Retirement: A Review of the Literature

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This paper reviews the literature on the multiple pathways by which older adults transition from full-time employment to full, bridged, or phased retirement with the ultimate objective of making recommendations to improve data capture for future iterations of the National Survey of College Graduates (NSCG) and the Survey of Doctorate Recipients (SDR). This paper begins with a summary of the retirement data currently captured within the NSCG and SDR (see section below); subsequent sections include a review of the relevant literature on retirement patterns, pathways to retirement, and retirement behaviors.

1. *What data on retirement are currently captured in National Center for Science and Engineering (NCSES) surveys?*

Both the NSCG and SDR capture retirement information directly and indirectly; both surveys prioritize respondents' current employment situation, past employment and work-experiences, and educational background. With the existing retirement-related questions, NCSES can examine, for example, the number of years one has been retired, his or her academic or work background, the type of work pursued if one comes out of retirement, and how long one experiences health-related difficulties before retiring. At a high-level, the NSCG and SDR captures the following information directly related to retirement:

- If someone is retired currently and what year they retired (A3 NSCG/SDR)
- When someone last worked (A4 NSCG/SDR)
- Previous retirement (includes mandatory, early, or voluntary) but re-entered workforce (A8 NSCG/SDR)
- Why someone may be working fewer than 35 hours per week (previous or semi-retirement listed as an option) (A39 NSCG/A40 SDR)
- If a pension or retirement plan is available to respondents at their current job (A40 NSCG/A41 SDR)
- Why someone changed employer/job (retirement listed as an option) (B3 NSCG/SDR)

Though both the NSCG and the SDR collect important longitudinal data on retirement, recent trends that have impacted how older adults move into retirement necessitate additional questions that better capture emerging trends in retirement, the factors that influence decisions about retirement, and retirement behaviors.

2. *What are the current patterns involved in retirement? What are the emerging trends?*

Increases in life expectancy and the aging of the “baby boom” generation has resulted in a large increase in the population of older adults. Though people are also working longer, this population increase of older adults has caused higher numbers of retirees than in previous generations. In the United States,

the older adults are retiring at the “astounding rate of 10,000 people per day” (Health and Retirement Study (HRS), 2017, p. 8). In addition to the sheer number of retirees, the multiplicity of pathways to retirement and important differences in how “full retirement” and forms of “semi-retirement” are experienced creates a need for more robust data on retirement from the labor force. For most, a linear process in which one moves from full-time employment to full-time retirement is no longer relevant. Instead, retirement is viewed as a process and can take many paths (HRS, 2017). These different forms of retirement are discussed below.

2.1 Mandatory Retirement

Mandatory retirement is a situation in which an older worker is forced to leave their job at a particular age because of law or company policy (Cambridge, 2020). Although this practice was more common in the 1980s and earlier, most cases of mandatory retirement are illegal today due to the Age Discrimination in Employment Amendments of 1986 (99th Congress, 1986). Legal, mandatory retirement may be found in professions such as military service, law enforcement, air traffic controllers and pilots, and even accounting firms (Hannon, 2015). For example, pilots cannot fly commercially after their 65th birthday (Federal Aviation Agency, 2009). Regular commissioned officers serving in a grade below brigadier general or rear admiral must retire on the first day of the month following the month in which the officer becomes 62 years of age (10 U.S.C Chapter 63, 2010). Additionally, the accounting firm, PricewaterhouseCoopers (PWC), has a mandatory early retirement policy, which requires partners to retire by age 60 (Barnes, 2020). Additionally, many U.S. states require judges to retire at a particular age, which has been linked to a discussion on whether mandatory retirement can help promote gender parity in U.S. judiciaries (Goodman, 2020).

This type of retirement has overlap with most of the subsections below; for some older adults, mandatory retirement may directly lead to full retirement (i.e., traditional retirement), others may seek a new job (i.e., bridge employment), and others may temporarily retire but re-enter the workforce in a different role (i.e., un-retirement).

2.2 Traditional Retirement

Traditional retirement is a linear process by which a worker transitions from full employment to full retirement; therefore, traditional retirement is characterized by a permanent withdrawal from the workforce. From 1992 to 1998, over 50% of workers followed the traditional path of retirement (Health and Retirement Study, 2017; Maestas, 2010). One potential indicator of a traditional retirement is an individual's anticipation to work again. The National Institute on Aging Health and Retirement Study (HRS) collects data on this construct by asking participants if they would like to continue doing some form of paid work after they retire. Of retirees born between 1931 and 1941, only 8% of those who had not expected to return to work ended up returning to work (HRS, 2017, p. 23). Conversely, 92% of this cohort correctly predicted a traditional retirement based on their lack of anticipation to return to work.

In 2010, Richard Johnson and the Retirement Policy Program at the Urban Institute examined retirement behavior changes among different waves of retiring cohorts using data from the HRS and the Survey of Income and Program Participation (U.S. Census Bureau). Its analysis found that, among workers from the G.I. Generation (born 1913 to 1917), 51.1% of men and 60.1% of women followed a traditional retirement path. About 20 years later, for workers of the Silent Generation (born 1933 to 1937), 34.3% of men and 37.4% of women transitioned directly from full-time work to permanent retirement (Johnson et al., 2010, p.27). This research indicates that younger generations are less likely to follow a traditional retirement path in favor of a transitional retirement that includes phased retirement, bridge employment, or un-retirement.

2.3 Phased Retirement

Phased retirement is a precursor to a workers' permanent withdrawal from the workforce. Phased retirement is typically executed through a reduction of hours in the worker's job offered by the employer. Phased retirement provides benefits to both the older worker and employer. This partial retirement strategy allows full-time employees to ease into full retirement by working part-time schedules and beginning to draw retirement benefits (financial, health, and personal). Also, phased retirement provides employers with continued access to the institutional knowledge and experience of the older worker (OPM, 2022). Often, this knowledge and experience can be invaluable in terms of mentoring and developing the next generation of workers in the field. Alternatively, some research has indicated that the odds of entering phased retirement are strongly and inversely related to employee performance, potentially starting the retirement process earlier rather than extending careers if performance is low (Allen et al, 2004). Ultimately, phased retirement programs are dependent on its design to accommodate older workers by addressing aspects of training and mentoring, work flexibility, and healthcare and other retirement benefits (Henkens et al., 2021). According to a 2004 representative telephone survey of 950 employers between 2001 and 2002, phased retirement was more common among large establishments that already employ part-time white-collar workers and allow job sharing and flexible starting times (Hutchens et al., 2004).

2.4 Bridge Employment

Retirement research has identified the growing prominence of bridge employment, by which individuals shift from one career or long-term employment to a bridge job or jobs, and then eventually permanent withdrawal out of the labor force. In 1999, researchers used the first three waves of HRS data (1992, 1994, 1996 surveys) to estimate that between one-third and one-half of older (aged 51 to 61) Americans would utilize some form of bridge jobs before retiring completely (Quinn, 1999). In 2006, researchers reexamined the prominence of bridge employment using the first seven waves of HRS data, from 1992 to 2004, to estimate that about 60% of men and women who left a career job moved to a bridge job (Cahill et al., 2006). Later in 2015, new available HRS data showed that early Baby Boomers (aged 51-56 in 2004) are more likely than those in earlier retirement cohorts to move to a bridge job before retiring (Cahill et al., 2015). Retirement data have affirmed the idea that traditional retirement is becoming less common over time, with more retired-aged individuals pursuing an alternative job or host of employment opportunities after leaving one's principal career.

Bridge employment itself can take many forms. In 2015, Beehr and Bennett used existing retirement research to outline a typology of bridge employment. First, after leaving career employment, an older worker could pursue a bridge job similar to his or her career job or make a more drastic change doing something completely different. Also, the decision to begin a bridge job may be an immediate transition or delayed by market or social factors. Further, a bridge job may be steady (hired for a job with no predetermined end date) or intermittent (hired for a job that ends with the completion of a specific task). Finally, a bridge job can include any type of paid work, including part-time, full-time, or self-employment (Beehr and Bennett, 2015).

2.5 Re-Entering the Labor Force through Un-Retirement

Another emerging trend related to retirement today is labor market reentry, or un-retirement. Researchers are increasingly interested in why individuals exit retirement, whether related to personal satisfaction, financial need, or other factors. In 2010, a study from the RAND Corporation and the University of Wisconsin highlighted the prominence of untraditional retirement, with nearly 50% of

retirees following a path that involved partial retirement or unretirement (Maestas, 2010). The study found that the majority of un-retirement was anticipated by those returning to work rather than the result of unforeseen economic or personal changes. More specifically, 82% of retirees who reversed their retirement said (before retirement) that they expected to work during retirement. In 2019, a British unretirement study found that around 25% of participants experienced a retirement reversal, measuring how indicators such as gender, education, health, property ownership, and financial security affect one's decision to un-retire (Platts et al., 2019).

Another study from 2020 examined the prevalence of un-retirement over time using HRS data from 1992 to 2016 to determine if broader economic conditions impact an older American's decision to re-enter the workforce (Cahill et al., 2020). The study found that across men and women from the HRS core sample size—War Babies (aged 69 to 74 in 2016), Early Boomers (aged 63 to 68 in 2016), and Mid-Boomers (aged 57 to 62 in 2016)—full-time reentry prevalence remained consistent at around 10%–20% and part-time re-entry remained consistent at 60%–75%. These results indicate that while un-retirement has remained stable and popular over time, older Americans may not be as responsive to changes in the economic environment (such as the Great Recession in 2008). Generally, the rise in phased retirement, bridge employment, and un-retirement among older adult populations complicates decisions about retirement.

3. *What does the current literature tell us about the factors that influence decisions about retirement?*

Several factors influence decisions about how long an older person should remain in the workforce and when, or if, the decision to retire is made. These factors either incentivize or dis-incentivize workforce participation. The sub-sections below cover a range of economic factors, psycho-social factors, and matters related to health and disability that either push older workers out of the workforce (whether permanently or temporarily), or effectively pull older adults back into the workforce.

3.1 Economic Factors

Largely due to the rate of technological innovation and market instability, the twenty-first century has seen labor market disruption and uncertainty at an accelerated pace (Van Horn et al., 2015). On a national and a global scale, this market volatility makes it difficult for seniors to effectively plan their retirement. A set of underlying factors affects the decision to retire—assurance that one's necessities (a place to live, money for food and other essential items, and access to healthcare) will be covered by their income, which could come from social security and pensions in addition to wages from working. Therefore, the predictability of market forces has a compound effect, instability makes it difficult to predict one's regular income, while simultaneously making it difficult to predict the costs of meeting one's basic needs. These economic pressures have provoked a seismic shift in many older Americans' expectations for retirement; earlier generations expected to retire by 65, while today most Americans don't believe they will ever be able to completely stop working (Van Horn et al., 2015). The sub-sections below cover the major factors behind this emerging trend of remaining within the workforce past the traditional age of retirement (65), while adding context to why some choose to leave the workforce (whether temporarily or permanently, voluntarily or involuntarily).

3.1.1 Pensions & Benefits

Much of the U.S. workforce receives a significant portion of its lifetime compensation from pensions, though not all workers have the information they need to plan accordingly (Biasi, 2019). Therefore, the diminishing returns of pensions play a substantial role in why many Americans are working longer than previous generations (Van Horn et al., 2015). As the shift from defined-benefit contribution plans (which provide a specified payment amount in retirement) to defined-contribution pension plans (which require employer and employee investment to generate savings for retirement) has become more prevalent, fewer seniors than in previous generations are guaranteed pension benefits from their employer (Van Horn et al., 2015). The shift in types of pensions places much of the financial risk on the employees. Also, because the nature of work is changing across age groups, more Americans participate in types of work that do not offer any pension benefits, including freelance and other project-based work (Van Horn et al., 2015). Benefits, however, go beyond the financial. Therefore, an employer's nonpecuniary benefits can also keep older adults in the workforce. Nonpecuniary benefits are non-monetary incentives that employers can use to motivate and reward workers, like work flexibility, public recognition, opportunities for professional development, time for volunteering, and wellness programs (Verlinden, 2021). According to economic labor supply theory, nonpecuniary benefits can, under some conditions, generate a larger market labor supply. For example, valuing nonwork time (like retirement) at an individual's wage rate understates its true value when time spent on work renders nonpecuniary benefits (Farzin and Akao, 2005). Nonpecuniary benefits (or lack thereof) can impact an individual's retirement decision and pathway.

In addition to the economic stability of the nation, the current strain on social welfare programs and other economic supports for older adults, exasperated by an aging population, also plays a significant role in encouraging workforce participation into old age (Aaron and Callan, 2011); shifts from defined benefit pension plans to defined contribution pension plans, access to healthcare, and changes in social security benefits are among the factors that influence decisions about retirement (HRS, 2017). Generally, those entitled to social security benefits have been found significantly less likely to continue working or return to work than their counterparts who are not entitled to the same benefits (Rust and Phelan, 1997). When it comes to health insurance, most Americans obtain coverage as a fringe benefit of employment, indicating a need to continue working and potentially push-off retirement (Smith and Medalia, 2014). However, retirement research suggests a strong positive relationship between the availability of insurance not contingent upon one's continued work and the probability of retirement (Levy et al., 2015). With a greater policy focus on the availability of health insurance options, notably the Affordable Care Act, aimed to increase affordable alternatives to employer-sponsored health insurance, older workers' decision-matrix for retirement shifts. Existing retirement research suggests that the availability of public health insurance reduces the labor supply, particularly for older workers nearing retirement (Levy et al., 2015, p.2). In terms of social security benefits, because the benefit payment is tied to one's lifetime earnings, those with lower lifetime earnings may not be able to rely only on social security to meet their basic needs (Rasmussen, 2018). Due largely to the erosion of social supports, Americans' average age at retirement has increased since the 1990s and continues to trend upward, or in other words the probability of retiring is decreasing in older Americans (HRS, 2017; Mitchell et al., 2016; Aaron and Callan, 2011). Generally, regardless of race, women retire before men (HRS, 2017).

3.1.2 Employment Discrimination

An older American's decision to stop or scale back the amount they work or change the work they do may also be influenced by an inability to find employment as they age. Age discrimination is a key factor in older Americans' inability to find employment; for instance, age discrimination in employment

decisions may stymie older adults' ability to get a new job to replace a lost opportunity. In a 2017 American Association of Retired Persons (AARP) study, a majority of workers at least 45 years in age reported that they had seen or experienced age discrimination in the workforce (Perron, 2018). Although recent research studies have not identified a direct statistical relationship between perceived age discrimination and intended retirement age, age discrimination can be indirectly connected to retirement decisions through work engagement and cognitive identification (Bayl-Smith and Griffin, 2014). Additionally, it is important to understand how age discrimination intersects with other forms of workforce discrimination to put some older adults at more of a significant disadvantage than others. Job loss in the years leading up to retirement, for instance, is more common for Blacks and Hispanics as well as women across racial categories (Flippen and Tienda, 2000).

3.1.3 Social Supports & Familial Obligations

The support of one's family is another matter of great importance when making decisions about work. Families not only provide economic support and resources that may enable older Americans to stop or decrease their participation in the labor market, but they also provide resources (such as access to healthcare), as well as social and emotional supports to older adults that bear heavily on retirement decisions. Therefore, important demographic shifts in family size and household size as well as the culturally contingent social bonds between family members can further influence decisions about retirement. For instance, a spouse, a child, or a sibling may offer economic support or assistance in providing essential needs (e.g., food, housing, or financial support for unforeseen expenses).

Conversely, older Americans that have a financial responsibility to others are more likely to continue working. For instance, older Americans with dependent children are more likely to continue working longer than those who do not have dependent children (National Institute on Aging, Health and Retirement Study, 2017). So too are men with spouses in poor health (HRS, 2017).

3.1.4 Type of Work

Due to the physical toll of their work, blue-collar workers (such as construction and factory workers, truck drivers and sanitation workers) often lack the flexibility within their jobs to continue working past the age of retirement eligibility, which pulls them out of the workforce earlier than their white-collar counterparts (Jacobs, 2019). At least for some white-collar workers, the economic incentives simply favor continuing to work over leisure, especially when the work performed does not take an exacting toll on the body and involves some flexibility in when and how the work is performed (HRS, 2017). Accordingly, older adults who are college educated, self-employed, and high earners are more likely to remain in the workforce (HRS, 2017) than their counterparts who are less likely to benefit from their work and more likely to undergo adverse working conditions.

3.2 Quality of Life

One's overall quality of life is a paramount concern in making decisions about retirement. These psychological and social factors associated with quality of life should be understood within the larger context of retirement expectations and pre-existing dynamics within families, one's sense of wellbeing, desired lifestyle, and the frames of mind applied to work during one's working life. Familial changes and the enjoyment of spending time with loved ones has been shown to influence retirement decisions. For instance, a study by Lyu and Burr (2016) found that the arrival of a grandchild was associated with an 8% increase in likelihood to retire. Likewise, whether one's spouse is working (if they have a spouse) can also have an impact on remaining in the workforce. Men with working wives have been found to

continue working in their 70s, compared to older men whose wives do not work (Ozawa and Lum, 2005). The interdependence of retirement decisions largely rests upon a couple's level of enjoyment in spending time together (Gustman and Steinmeier, 2004). One's perspective and lived experience regarding work and including the perceived stress associated with work, has also been shown to weigh on the trajectories Americans follow as they age (Crosswell et al., 2020).

3.3 Health and Disability Status

Healthier seniors are more likely to remain in the workforce longer than those with significant health concerns or a disability. Of course, since health problems can make it difficult to continue working, a negative change in health status is associated with greater likelihood to retire (HRS, 2017). Additionally, older Americans with health concerns are also more likely to lose a job due to discrimination (HRS, 2017).

Health is a stronger predictor of retirement than economic factors (another powerful predictor of retirement).¹ For this reason, many surveys on retirement include long series of questions on older adults' objective and subjective experiences with health, including questions addressing disability, physical health and functioning, and cognitive functioning. Health insurance and health expenditures are also collected because adequate access to healthcare can help mitigate some of the effects (especially the most severe effects) of disease, disability (Mehta, Sudharsanan, and Elo, 2013), or another medical condition. Though, troublingly, even older adults with health insurance may spend a significant portion of their income on out-of-pocket costs (Levy, 2020). Likewise, long-term, in-home caregiving is rarely provided by insurance, and providing such care within the family structure exacts a financial and emotional toll on families (Robbins et al., 2022; Coe and Werner 2022).

Health occurs across several domains, including physical health, mental health, disability (sensory impairment, lack of mobility, the onset of severe disease, and loss of cognitive function associated with aging), and wellbeing (National Institute on Aging, Health, and Retirement Study, 2017; Crosswell et al., 2020), and there are sometimes compound effects. For instance, depressive symptoms have been linked with the development of severe disease in older Americans (Blaum, 1999).

Socio-economic status, race/ethnicity, and place of residence all have substantial impact on health status. Individuals with higher socio-economic status who have higher incomes and higher levels of educational attainment than their counterparts are more likely to be in good health as they age. Underserved and marginalized communities have higher prevalence of adverse medical events, disease, and disability within older adults and are also least likely to have access to appropriate healthcare, including within care facilities such as nursing homes (Whitfield and Baker, 2013; Arpey et al., 2017). The difference in health status across racial groups, therefore, is often quite significant. Conversely, the

¹ While vital, the nature of these surveys (survey timeframes) can inherently only capture a snapshot of the health of older Americans. By collecting venous blood samples and linking information within the genomes of older adults back to the various factors examined within their survey, the HRS is establishing a forward-looking view on the predicted health and disability status of the Baby Boomer generation. As the repository of biomarkers for common and uncommon conditions continues to mature, the amount of reliable information that is gathered, as well as the precision and actionability of such information, should improve with future generations. Moreover, the linking of survey data and blood samples is also meant to further investigate the connections between one's genetic makeup, physical functioning, and personality traits with the ultimate goal of creating "genetic determinants of aging."

gender gap in health status for older Americans is much less severe (HRS, 2017). Any of these factors can be worsened by lifestyle choices, such as smoking, excessive drinking, and obesity, which are all associated with poor health outcomes (HRS, 2017).

3.4 The Impact of the COVID-19 Pandemic

As discussed earlier in this paper, health and well-being, disability, economic conditions, family structures and living arrangements, and other life changes can influence how older adults approach decisions regarding work. The COVID-19 pandemic, in its re-structuring of the material and social realities of life, has had an important effect on all these factors. Perhaps the most devastating of these effects has been on health, with older Americans experiencing a higher mortality rate or suffering from long-term health setbacks from COVID-19 infections (Centers for Disease Control and Prevention, 2019; Shahid et al., 2020). The COVID-19 pandemic also caused severe economic setbacks that have exacerbated pre-existing inequalities and labor market polarization (Rasmussen, 2018).

Recent studies point to a loss of purpose among retirees (Hill, Lewis, and Burrow, 2020), a loss of mobility during COVID lockdowns (Shahid et al., 2020; Ayalon and Avidor, 2021), and severe psychological and emotional strains in older Americans, especially within racial/ethnic groups hardest hit by the pandemic (World Health Organization, 2020; Lin and Liu, 2021). As discussed in the section above, these challenges make it difficult to maintain employment; therefore, capturing the social, physical, psychological, and economic impacts of the pandemic for older Americans, who have been hardest hit by the pandemic (SHARE-ERIC Central coordination, 2020), will shed light on how the COVID-19 pandemic has impacted their retirement plans among other factors. Though data on the relationship between the COVID-19 pandemic and retirement trends is still maturing, “as of August 2021...slightly more than 3 million people likely retired earlier than they would have otherwise” (Faria-e-Castro, 2021, p. 1). If current trends continue, the share of U.S. adults, especially those in “high-contact” fields such as wholesale, retail, and factory work where jobs often require high levels of close personal contact, who are forced into retirement could continue trending upward (Davis, 2021).

4. What do we currently know about retirement behaviors?

Since retirement does not always progress from full employment to full retirement in a linear fashion, how older Americans experience retirement is important for understanding retirement pathways. Those that engage in enriching behaviors that may bring older adults happiness, a sense of purpose and fulfillment outside of work, and a sense of rich social connectedness in retirement are more likely to remain retired, especially if they are financially secure (Schlosser, Zinni, Armstrong-Stassen, 2012). Conversely, retirees who do not have a positive experience are more likely to re-enter the workforce, at least in some capacity (Henkens and Soling, 2013; Schlosser, Zinni, Armstrong-Stassen, 2012).

4.1 Voluntary work and motivation

There has been increased focus in studying retirees who engage in volunteering or acquire a second job. A study done in 2004 found that compared to retirees who neither worked nor volunteered, retirees that engaged in volunteer activities or are employed were more educated, more physically active, and in better health (Kaskie et al., 2008). Postretirement volunteering and working has been linked by several researchers to improved mental and physical well-being as retirees get older (Glass et al., 1999; Herzog and House, 1991; Morris and Caro, 1995; Seeman and Crimmins, 2001). Researchers Kaskie and Gerstner (2004) fielded a survey among 254 retired Californians and found that more than 70% of them

chose to work because it keeps them active, engaged with other people, and allows them to contribute to their local community.

Better mental and physical health, community engagement, financial stability and access to health benefits are primary motivators for engaging in postretirement work among retirees. It is expected that the demand for retired adults to engage in the workforce or some form of volunteer work will only increase as federal and state governments continue to reduce financial support for education, health, and social service programs (Martinson and Minkler, 2006). As the cost of living continues to increase, individuals who are currently aged 55 to 64 years old have less wealth than the previous generation of older adults; retirees may opt to return to work to maintain their lifestyle and income (Cahill, Giandrea, and Quinn, 2006; Hershey and Mowen, 2000). A study conducted by Szinovacz and Davey in 2005 reported that as many as one out of every three older adults were forced into retirement. Additionally, these forced retirees were more likely to need additional financial assistance and Medicare and Medicaid benefits. Interestingly, other researchers have found that postretirement workers continue to work to obtain supplemental and other noncash benefits that accompany the position and that earning an income may be a secondary motivation (Kaskie et al., 2005).

4.2 Social Networks

Researchers have found that retirees who engage in postretirement work, particularly civic engagement, are more likely to remain connected with their local communities, participate in social activities, and are more aware of postretirement opportunities. Civic engagement can be defined as voluntary or paid participation in an activity that occurs within an organization that has a direct impact on the local community (Kaskie et al., 2008). In 1995, Boggs, Rocco, and Spangler suggested that as adults age, their potential impact on a community through civic engagement increases. Starting with registering to vote at 18, young adults start to become more aware and attentive to community matters and begin to make more substantial contributions to their community (e.g., volunteering at a soup kitchen, participating in a Parent-Teacher Association). By the time individuals are ready to retire, they have amassed a wealth of knowledge and skills to make a direct impact on their local community. By engaging in their local communities, they engage with youth, nonprofits, and government entities (Kaskie et al., 2008).

4.3 Lifestyle Changes

Retirees often experience many lifestyle changes as their physical and mental health changes, which may require them to move. Continuing care retirement communities (CCRCs) have been a focal point of studying retirees' behaviors. These communities are defined by the AARP as "a long-term care option for older people who want to stay in the same place through different phases of the aging process." For instance, an individual may start out living independently in their own unit and later transition to assisted living or to skilled nursing, while staying in the same community. Researchers Heisler, Evans, and Moen conducted a study in the late 1990s to investigate the experience of moving into a CCRC for those moving intra-county as well as those moving outside of the county. Their results indicated that social integration is a very strong predictor of physical health, self-esteem, and life satisfaction among older adults. Kaskie et al. suggests that retirees who are engaged in their community through volunteer or paid work are more likely to visit friends and family than retirees who are not. However, Heisler et al. found that friendships are more likely to change with the retiree's locale whereas familial relationships are more independent of location. In fact, retirees within CCRCs are more likely to form friendships and create relationships with others within the CCRC than if they were to live independently and separate.

Grandparents are often utilized as a resource for childcare, and retirees are more likely to have time to engage with their grandchildren. Additionally, actively or civically engaged retirees are even more likely to engage with their grandchildren as they tend to be more physically active and mentally aware, making them more equipped to “keep up” with their grandchildren (Kaskie et al., 2004).

5. How can NCSES improve data capture on the diverse pathways to retirement or semi-retirement within the NSCG and SDR questionnaires?

This section includes a high-level summary of national-scale surveys on retirement and aging. The most impactful, nationally representative, U.S.-based surveys encountered during our review of the literature include:

[Health & Retirement Study \(HRS\)](#): Since 1992, the HRS has collected a nationally representative longitudinal study of older people with both detailed economic and health information. Supported by the National Institute on Aging and the Social Security Administration, the study has conducted unique and in-depth interviews with approximately 20,000 people in America addressing questions about aging. There are over 24,000 registered users of HRS data and over 3,000 publications reporting on HRS data.

[National Health & Aging Trends Study \(NHATS\)](#): Since 2011, NHATS has conducted annual in-person interviews with a nationally representative sample of Medicare beneficiaries ages 65+. NHATS focuses on late-life disability trends and trajectories. NHATS is supported by the National Institute on Aging, under a collaborative agreement with the Johns Hopkins University Bloomberg School of Public Health.

[National Social Life, Health, and Aging Project \(NSHAP\)](#): The NSHAP is a nationally representative sample of Medicare beneficiaries, 65 years and older. The survey collects information on senior’s disability status, health and independent functioning, and quality of life. NSHAP is sponsored by the National Institute of Aging and National Institutes of Health.

Relevant and equally impactful studies used to collect data on Europeans, include:

[Survey of Health, Ageing, and Retirement in Europe \(SHARE\)](#): SHARE collects information on health, social, economic, and environmental policies over an individual’s life course, the survey covers 28 European countries and Israel. From 2004, 530,000 in-depth interviews have been conducted with 140,000 people aged 50 and older. SHARE is the largest pan-European social science panel with internationally comparable, longitudinal micro data that examines public health issues and socio-economic living conditions. SHARE is primarily funded by the European Commission, National Institute on Aging, and German Federal Ministry for Education and Research. The survey effort also receives national funding from twenty countries to support SHARE.

[English Longitudinal Study of Ageing \(ELSA\)](#): Based on the HRS in the United States, ELSA collects data on aging from people over 50 years on, joining a network of longitudinal aging studies. Since starting in 2002, more than 18,000 people have participated, re-interviewing every two years. ELSA collects information on people’s physical and mental health, well-being, finances, and attitudes around ageing and how these constructs change over time. The first eight waves of ELSA were funded by the U.S. National Institute on Aging, and a consortium of departments within the British government, including:

- Department of Health,
- Department for Transport,

- Department for Work and Pensions,
- Communities and Local Government (formerly Office of the Deputy Prime Minister),
- HM Treasury,
- Department of Environment, Food and Rural Affairs,
- HMRC (formerly Inland Revenue and HM Customs and Excise), and the
- Office for National Statistics.

The content of the ELSA is the result of a collaboration between the University College London (UCL), the Institute for Fiscal Studies (IFS), the University of Manchester and NatCen Social Research.

Table 1 (below) contains pertinent information on each survey’s target population, sample, coverage, and data collection procedures/modality. Table 2 maps, at a high-level, summarizes data capture based on the topic areas presented within this literature review. This table will evolve throughout the process of developing retirement modules for the NSCG and the SDR. Upon the next iteration, SRI will populate the table with survey questions for each instrument. The table below focuses on publicly available, nationally representative surveys and can be updated with additional surveys as the research team identifies and accesses additional instruments.

Table 1. Survey Details: Target Population, Sampling, and Modality

| | Health & Retirement Study (HRS) ² | National Health & Aging Trends Study (NHATS) ³ | National Social Life, Health, and Aging Project (NSHAP) ⁴ | Survey of Health, Ageing and Retirement in Europe (SHARE) ^{5,6} | English Longitudinal Study of Ageing (ELSA) ⁷ |
|--------------------------|---|---|--|--|---|
| Target Population | The target population of Wave 1 of the HRS is U.S. adults aged 51 to 61 (excluding persons in jails, nursing homes, and long-term care facilities). | Medicare beneficiaries ages 65 and over | In 2005, Round 1 (R1) of the first cohort (C1) was conducted with adults aged 57 to 85 at the time of recruitment. In 2015, Round 3 (R3) introduced a new cohort of respondents (C2) who were aged 50 to 67 to be interviewed alongside surviving respondents from C1. | People aged 50 or older in Europe and Israel. SHARE excludes persons if they are incarcerated, hospitalized, out of the country during the entire survey period, unable to speak the country’s language(s), or have moved to an unknown address. | English population aged 50 and older, living in private households. |

² For more information on HRS, see: <https://hrs.isr.umich.edu/documentation/questionnaires>.

³ For more information on NHATS, see: https://www.nhats.org/sites/default/files/2021-07/NHATS_User_Guide_R10_Final_Release.pdf.

⁴ For more information on NSHAP, see: <https://www.norc.org/PDFs/NSHAP/NSHAP-Wave-1-Instruments-2011-11-22.pdf>.

⁵ For more information on SHARE, see: <http://www.share-project.org/data-documentation/questionnaires.html>.

⁶ SHARE covers bridge and un-retirement indirectly over time, it does not have specific questions that measure these constructs.

⁷ For more information on ELSA, see: https://www.elsa-project.ac.uk/files/ugd/540eba_1b12cb61558e4fde917160090c0952af.pdf.

| | Health & Retirement Study (HRS) | National Health & Aging Trends Study (NHATS) | National Social Life, Health, and Aging Project (NSHAP) | Survey of Health, Ageing and Retirement in Europe (SHARE) | English Longitudinal Study of Ageing (ELSA) |
|---------------------|--|--|--|---|--|
| Sample Frame | The HRS core sample is drawn from a mix of primary metropolitan statistical areas (PMSAs), metropolitan statistical areas (MSAs), single counties or groups of small counties. Florida is oversampled, supplements for Black and Hispanic Americans were created to make counts for these groups more precise. | NHATS sample design uses data from the Medicare enrollment file | The NSHAP sample used the foundation of the national household screening carried out by the HRS in 2004. | Although it varies by country, SHARE sample design uses a telephone directory, register for specific use, and population or civil register. | Sample is based on respondents who participated in the Health Survey for England (HSE). Households were removed from the HSE sampling frame for ELSA Wave 1 if it was known that no adult aged 50 or older agreed to be re-contacted |
| Coverage | National area probability sample of community residing adults with supplemental oversamples of African Americans, Hispanics, and resident of the state of Florida. | Nationally representative sample with oversampling of Black Americans and persons at older ages. | National area probability sample of community residing adults with oversampling of Blacks and Hispanics. | With Wave 7, SHARE achieved full coverage of all 26 continental EU Member States in addition to Switzerland and Israel. | Nationally representative sample of England. |

| | Health & Retirement Study (HRS) | National Health & Aging Trends Study (NHATS) | National Social Life, Health, and Aging Project (NSHAP) | Survey of Health, Ageing and Retirement in Europe (SHARE) | English Longitudinal Study of Ageing (ELSA) |
|--|---|---|--|--|--|
| Data Collection Procedures & Modality⁸ | Starting in 1992, HRS face-to-face “Core interviews” have been conducted with participants every two years. Internet surveys, self-administered mail surveys and telephone interviews are also utilized for cost and time efficiencies. | In-person interviews (first conducted in 2011), re-interviews conducted annually ⁹ | Data collected consisted of an in-person questionnaire administered by a NORC field interviewer in the respondent’s home. ¹⁰ Respondents are left with a supplemental paper-and-pencil questionnaire that they are asked to complete and return via USPS. | With exception of the SHARE Corona Survey (collected by telephone), SHARE data collection is based on computer-assisted personal interviewing (CAPI). These interviews occur every two years (first conducted in 2004). | Starting in 2002, ELSA interviews are conducted face-to-face using CAPI, combined with self-completion questionnaires completed using pen and paper (PAPI). Respondents are interviewed every two-years. |
| Additional Info on Data Collection Activities | The HRS data collection software changed from Surveycraft to Blaise in 2002 for computer-assisted interviewing and survey processing. | N/A | NSHAP also collects important information via biomeasures, including anthropometrics, cardiovascular function, physical performance measures, actigraphy, sensory function, biological sample collection, and genetic analysis. | SHARE uses one common generic questionnaire that is translated into several national languages using an internet-based translation tool and processed in a CAPI instrument. In some cases, SHARE must modify diverse variables that require country-specific measurements. | The ELSA sample has been refreshed five times since 2002, adding eligible respondents, who agreed to be re-contacted, to help fill younger ages of the sample as the study progresses. |

⁸ HRS, NHATS, NSHAP, SHARE, and ELSA conduct some form of performance-based tests to provide additional data on physical and cognitive function.

⁹ If a respondent is in a residential care setting (such as a nursing home), an additional instrument (the Facility Questionnaire) is used to collect information on the residential care setting. For respondents that die between interviews, the Last Month of Life Interview collects information on place, activities, and quality of end-of-life care.

¹⁰ Although the COVID-19 pandemic interrupted the five-year interval for NSHAP respondents, NSHAP conducted a special COVID-19 sub-study that was collected via web surveys, phone interviews, and paper-and-pencil questionnaires.

Table 2. Topic Coverage by Survey Instrument

| | Health & Retirement Study (HRS) ¹¹ | National Health & Aging Trends Study (NHATS) ¹² | National Social Life, Health, and Aging Project (NSHAP) ¹³ | Survey of Health, Ageing and Retirement in Europe (SHARE) ^{14,15} | English Longitudinal Study of Ageing (ELSA) ¹⁶ |
|--|---|--|---|--|---|
| Traditional Retirement | ü | ü | ü | ü | ü |
| Phased Retirement | ü | | | ü | ü |
| Bridge Employment | ü | | | ü | ü |
| Labor Force Re-Entry/Un-retirement | ü | | | ü | ü |
| Economic Factors that Influence Retirement Decisions-Personal Finances | ü | ü | ü | ü | ü |
| Economic Factors that Influence Retirement Decisions-Pensions | ü | ü | | ü | ü |
| Economic Factors that Influence Retirement Decisions-Benefits | ü | ü | | ü | ü |
| Psycho-social Factors ¹⁷ -Lifestyle | ü | ü | ü | ü | ü |
| Psycho-social Factors-Health and Well-being | ü | ü | ü | ü | ü |
| Psycho-social Factors-Work | ü | ü | | ü | ü |
| Retirement Behaviors ¹⁸ | ü | ü | ü | ü | ü |
| Effects of COVID-19 | ü | ü | ü ¹⁹ | ü ²⁰ | ü |

¹¹ For more information on HRS, see: <https://hrs.isr.umich.edu/documentation/questionnaires>.

¹² For more information on NHATS, see:

https://www.nhats.org/sites/default/files/2021-07/NHATS_User_Guide_R10_Final_Release.pdf.

¹³ For more information on NSHAP, see: <https://www.norc.org/PDFs/NSHAP/NSHAP-Wave-1-Instruments-2011-11-22.pdf>.

¹⁴ For more information on SHARE, see: <http://www.share-project.org/data-documentation/questionnaires.html>.

¹⁵ SHARE covers bridge and un-retirement indirectly over time, it does not have specific questions that measure these constructs.

¹⁶ For more information on ELSA, see:

https://www.elsa-project.ac.uk/files/ugd/540eba_1b12cb61558e4fde917160090c0952af.pdf.

¹⁷ Psycho-social factors garner a lot of attention in HRS and other listed survey instruments with lifestyle, health and well-being, and work being the most prevalent.

¹⁸ Something for the project team to consider: If an instrument captures if someone is retired or not and information about social networks, moving, and other lifestyle data points, should that count as indirectly capturing retirement behavior?

¹⁹ NSHAP conducted a special COVID-19 sub-study between September 2020 and January 2021.

²⁰ SHARE has a special dataset called SHARE Corona Survey to be collected during Wave 8 of interviews.

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